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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,447	01/14/2002	Manfred Jagiella	HOE-669	1068

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EXAMINER	
PHAM, HOA Q	

ART UNIT	PAPER NUMBER
2877	

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/047,447	JAGIELLA ET AL.	
	Examiner	Art Unit	
	Hoa Q. Pham	2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 August 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *50-98* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *50-98* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 January 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 50-76 and 90-98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtomi (4,894,597) in view of Franklin et al (6,628,408).

Regarding claims 50, 6-66, 68-69, 72, 90, 92-94 and 98; Ohtomi discloses a deburring robot comprises a non-contact distance sensor (97) with a detector head (9) is positioned at a distance to the workpiece (6), the detector head and the workpiece are movable relative to one another (figures 2-4). Ohtomi does not explicitly teach that the detector head is couplable electromagnetically to the workpiece; however, such a feature is known in the art as taught by Franklin et al. Franklin et al, from the same field of endeavor, teach that the distance sensor (40) in which the current flows through a coil (41) sealed in the housing (42). The electromagnetic field (45) of the coil (41) induces eddy currents in the conductive target (44) (see figures 9-10 and column 7, lines 6-20). It would have been obvious to one having ordinary skill in the art at the time

the invention was made to replace the detector head of Ohtomi by a detector head of Franklin et al because they are both used for distance measurement. A substitution one for another is generally recognized as being within the level of ordinary skill in the art.

Regarding claim 51, see figure 9-10 of Franklin et al for active surface.

Regarding claims 52-56, 91, and 97; see column 3, lines 1-6 of Franklin et al for moving relative between the detector head and workpiece. It also would have been obvious to one having ordinary skill in the art at the time the invention was made to move and/or rotate the detector head in different directions so that the whole surface is inspected.

Regarding claims 57, 61, see column 2, lines 57-59 for detector position adjusting mechanism (10).

Regarding claims 58-60, using a distance measuring probe for inspecting a bore in a workpiece is well known in the art, thus it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Ohtomi for the purpose of inspecting the bore in a workpiece.

Regarding claim 67, see column 3, lines 7-19 of Ohtomi for comparison.

Regarding claims 70-71, 74, and 96, see column 7, lines 21-29 of Franklin et al for the use of an inductive sensor.

Regarding claim 73, see column 7, lines 49-50 of Franklin et al for the use of the fiber optic displacement sensor.

Regarding claims 75-76 and 95, see figure 10 and column 7, lines 30-35 of Franklin et al for capacitive displacement measuring device (60).

4. Claims 77-89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtomi and Franklin et al as applied to claim50 above, and further in view of Matsuura et al (5,243,265).

Regarding claims 77-81 and 88-89, both Ohtomi and Franklin et al does not explicitly teach the device having a second distance sensor or a plurality of sensors; however, such a feature is known in the art as taught by Matsuura et al. Matsuura et al, from the same field of endeavor, teach the use of two distance sensors (5a and 5b)(see figures 1 and 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include in Ohtomi an additional distance sensor as taught by Matsuura et al. The rationale for this modification would have arisen from the fact that using additional sensor would increase the speed of the measurement.

Regarding claims 82, 83, and 86-87; Matsuura et al does not explicitly teach that the sensors have the same viewing plane or offset viewing plane or different view directions. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to adjust the sensors so that they are measuring the distance at different viewing planes or directions. The rationale for this modification would have arisen from the fact that the viewing planes or directions are adjusted on the basis of different shapes, diameter of the workpieces.

Response to Arguments

5. Applicant's arguments filed 8/2/04 have been fully considered but they are not persuasive.

a. Applicant's remarks, page 2, argue that the references do not teach "at least one distance sensor" and "a detector head". Applicant's argument is not deemed to be persuasive because Ohtomi discloses a distance sensor 9 for detecting the distance between the sensor and the workpiece 6 (column 2, lines 33-39). Applicant is also noted that the distance sensor 9 is considered as a detector head because it contains laser source 91, optical sensor 97, etc...

b. Applicant's page 2 argues that Ohtomi does not teach the detector head is couplable electromagnetically to the workpiece; however, such a feature is taught by Franklin et al as mentioned above.

c. Regarding page 3 of the remarks, Applicant argues that detector 9 of Ohtomi does can not be used to examine burrs in bores; however, applicant does not give any reason why the **detector can not be used for examining burrs in bores**. In addition, nowhere in the present claims, especially claim 50, recites this limitation. **Claims must be examined on the basis of what they say, absent limitations may not be considered to be present.**

d. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a

reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

e. In response to applicant's argument that Franklin et al is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Franklin et al teaches the use of a sensor unit for detecting the deviation of a workpiece or displacement of a workpiece (see column 3, lines 8-34). Thus, Franklin et al is in the field of the applicant's endeavor of detecting the distance, deviations or displacement of an object of measurement.

In view of the foregoing, it is believe that the rejection of claims 50-98 under 35 U.S.C 103 is proper.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa Q. Pham whose telephone number is (571) 272-2426. The examiner can normally be reached on 7:30AM to 6 PM, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hoa Q. Pham
Primary Examiner
Art Unit 2877

HP
November 1, 2004